

# Notice of Allowability

Application No.

10/814,286

Examiner

Emmanuel Bayard

Applicant(s)

IM, HEUNG-JAE

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 8/13/07.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### DETAILED ACTION

This is in response to amendment filed on 8/13/07 in which claims 1-28 are pending. The applicant's amendments have been fully considered therefore this case is in condition for allowance.

#### ***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance: the prior arts of record fail to anticipate or render obvious the following recited features: a pilot signal generating means that produces a pilot signal that is to be used as input of a weight vector computing means to compute a weight vector, by using a descrambled signal from the descrambling means, and finds out estimation value for delayed phase of each traffic channel; the weight vector computing means that produces the weight vector by using signals from the descrambling means and the pilot signal generating means; a general weighting means for producing a general weighted signal, by compensating phase delay of [[the]] abase-band received signal with the weight vector; a pilot phase estimation means that produces phase compensation signal to compensate phase delay of each channel by using the weight vector and the pilot signal as recited in claim

1. A searcher for transmitting the searcher energy correlation energy that exceeds preset threshold value to lock detector while the searcher energy correlation energy is computed through correlation procedure between output of the ADC and [[the]] aPN-code corresponding to [[the]] apilot channel; a lock detector for generating signals needed for accurate frame synchronization which are a frame reset (f reset), a frame timing (f\_timing), a frame death (f\_death) information using the correlation energy

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provided from the searcher; and at least one finger wherein [[the]] traffic channel signals are weighted in the mixed-rate with [[the]] weights which are obtained from [[the]] received data in the pilot channel of [[the]] a reverse link as recited in claim 21. A fourth function of generating [[the]] an array output by summing up the results of multiplication between the weight vector and the received signal in such a way that inter-element phase difference be compensated; a fifth function of generating the phase compensation signal to compensate phase delay of channel by multiplying the weight vector with the pilot signal; a sixth function of generating received data for each of the traffic channel [ls]] by using outputs of [[the]] a general weighting step, the PN-code, and corresponding Walsh codes; and a seventh function of compensating [[the]] a phase distortion due to the channel delay by using the phase compensation signal to weighted traffic signal as recited in claims 26 and 28.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kim et al U.S. Pub No 20020131381 A1 teaches an apparatus and method for controlling transmit antenna.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/19/2007

EMMANUEL BAYARD  
Primary Examiner  
Art Unit 2611

